ENGINEERING

engineering.louisville.edu

The J.B. Speed School of Engineering has been a leader in engineering education since its founding in 1925. It offers you the individualized instruction of a small engineering college coupled with the ample resources and activities of a major metropolitan university. Your Speed School education combines classroom instruction, research and real-world experiences to help you change the world for the better.

The Speed School offers some of the most sophisticated equipment available in the areas of nanotechnology, biotechnology, microelectromechanical systems, robotics, 3-D printing and cleanroom technology. You join faculty, staff, and other students who are actively involved in research areas including: energy and sustainability, advanced manufacturing and logistics, engineering human health, cyber-enabled discovery and materials science engineering. With a focus on making the world safer, more comfortable and more efficient, Speed School graduates shape the technology that will define the next century.

97%
OF SPEED SCHOOL GRADUATES ACCEPTED A JOB WITHIN 90 DAYS OF GRADUATION

$62,567
IS THE MEDIAN SALARY REPORTED BY RECENT GRADUATES

#1
IN ENGINEERING CO-OP PLACEMENT WITHIN KENTUCKY

Beyond the classroom

LIVE AND LEARN

Speed School offers you the chance to live on campus with your fellow engineering majors and participate in tailored programs that suit your personal and academic goals. Students who participate in the Engineering Living-Learning Community (ELLC) reside in Community Park, a residence hall in close proximity to the school. The ELLC offers free tutoring for our first-year courses. The ELLC has four focus points: leadership, community service, hands-on experience and career exploration. Programming is provided regularly to grow our engineering students outside of the classroom. Students who live within the ELLC have a higher GPA than their peers. Visit *uofl.me/llc* to learn more.

ACADEMIC & LEADERSHIP CENTER

Speed School is committed to the success of its students. The Speed School academic and leadership center focuses on two key components to success. Engineering students receive free tutoring in most of their fundamental and upper-level courses. In addition the engineering school provides a variety of leadership development programming from alumni speakers to ethical leadership training.

ENGINEERING GARAGE

The Speed School Engineering Garage is a large makerspace located next to the Additive Manufacturing Competency Center and GE FirstBuild. This is space for the student and by the student. All engineering

competition teams, as well as some introductory courses, are house within the garage. This is a place where you can come to design, 3-D print, and build and colloborate with state-of-the-art technology from the day you become a Speed engineering student.

STUDENT ORGANIZATIONS AND CLUBS

Student organizations and clubs are a great way for you to get involved in campus life, connect with other students and develop leadership, collaboration, interpersonal and communication skills. Included in the university's more than 450 student groups are more than three dozen active engineering student organizations. In engineering, teamwork is fundamental. That's why Speed School students also have the opportunity to participate on competitive teams including: the Baja team, which builds and races an off-road recreational vehicle designed to endure challenging terrain; DerbyHacks, a 24-hour invention competition; Formula SAE, which designs and builds a prototype race car; Redbird Robotics, which offers all aspects of robotic design from concept and programming to manufacturing; and River City Rocketry, which competes in the annual NASA University Student Launch Initiative competition—in which the team has placed in the top five the past several years. Speed School hosts 30+ student organizations dedicated to your personal and professional growth.

For a complete list of the Speed School's student organizations, visit *engineering.louisville.edu/clubs/*

DEGREE PROGRAMS AND CAREER OPPORTUNITIES

*Bachelor's, Master's and Doctoral degree program offered.

BIOENGINEERING*
A degree in Bioengineering puts you on the cutting edge of modern industry. It's a multidisciplinary field at the intersection of science and engineering. It's also one of the fastest growing job markets.

CHEMICAL ENGINEERING*
A degree in Chemical Engineering opens doors in emerging industries powered by chemical engineering – biotech, pharma, and green energy.

CIVIL ENGINEERING*
At the core of how cities and towns function, Civil Engineers consider the implications of natural disasters, road safety, and wastewater treatment to research what risks must be assessed to potentially save lives in the modern world.

COMPUTER SCIENCE & ENGINEERING*
Computer engineers are adaptative, critical thinkers who work at the nexus of hardware and software technology to find solutions using networks, artificial intelligence, data mining, simulation and robotics.

COMPUTER SCIENCE
The rapidly changing universe of computers provides endless opportunities to learn such transformational technologies as artificial intelligence, bioengineering, robotics, computer simulation and e-commerce.

ELECTRICAL ENGINEERING*
Electrical engineers design and test components and systems that use or generate electricity. This encompasses virtually all modern technology including satellites, wireless, computers, electronics, power, radar and navigation, electric motors and drives, medical imaging, and wearable devices.

INDUSTRIAL ENGINEERING*
Complex systems require the coordination of people, equipment, energy, material, and information. Industrial engineers design the systems to make our world run efficiently.

MECHANICAL ENGINEERING*
Mechanical engineering is a foundational branch of engineering because ME's are needed to contribute to the development of an incredibly wide variety of systems and are trained to design, develop, test, and manufacture components or processes that do useful work.

CERTIFICATE PROGRAMS

A.I. IN MEDICINE
COMPUTER ENGINEERING
CYBERSECURITY
DATA SCIENCE
ENVIRONMENTAL ENGINEERING
STRUCTURAL ENGINEERING
TRANSPORTATION ENGINEERING

ENGINEERING MINOR PROGRAMS

COMPUTER SCIENCE

ENGINEERING MASTER'S PROGRAMS

ENGINEERING MANAGEMENT
MATERIALS AND ENERGY SCIENCE & ENGINEERING

RESEARCH OPPORTUNITIES

As early as your freshman year, you have the opportunity to get hands-on experience by collaborating with faculty, staff and industry partners on exciting research activities, focused on six interdisciplinary areas: energy and sustainability, advanced manufacturing and logistics, cyber-enabled discovery, engineering human health, advanced materials and nanoscience and engineering education. These efforts support our overall university mission to advance scientific knowledge and use that knowledge to train and launch the dreams of generations of students, enable research discoveries that transform the human condition and ensure the betterment of our community.

In addition to individual faculty laboratories, Speed School maintains several cross-discipline open-access core facility and interdisciplinary research centers/ institutes specializing in strategic areas. These state-of-the-art facilities—which include the Additive Manufacturing Institute for Science and Technology (AMIST), Conn Center for Renewable Energy Research, Logistics and Distribution Institute (LoDI), Louisville Automation & Robotics Research Institute (LARRI), and Micro/Nano Technology Center—support the overall research mission and allow us to tackle complex issues.

A complete list of research centers/ institutes and facilities is available at *engineering.louisville.edu/research*

COOPERATIVE EDUCATION

Through Speed School's cooperative education program, you combine classroom knowledge with professional experience. Co-op students are paid an hourly wage and receive academic credit for each semester of work.

• Required three semesters (one year) of professional experience

• Typical co-op earnings of $34,000+ (inclusive of all three co-op rotations)

• Corporate-sponsored senior capstone projects

• Nearly one-third of Speed graduates accept employment offers from their co-op employers

• 300+ employers recruit our students for co-op and full-time placement

APPLY

Ready to join the Cardinal Family?
Apply now at: *louisville.edu/apply*

The application process is easy. No letters of recommendation or essays are required. We'll do everything we can to help make your dream of attending and succeeding at UofL a reality.

Admission Guidelines: *uofl.me/ftf-adm-guidelines*

Transfer Admission Guidelines: *uofl.me/trf-admission*s

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UNIVERSITY OF
LOUISVILLE.

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